

CLAIM 36. (Currently Amended) The method of claim 36 33 wherein said third, fourth and fifth sensors are positioned at about 120 degrees with respect to each other.

CLAIM 37. (Original) The method of claim 28 including at least five sensors which, together with said read head, measure at least six degrees of freedom of said shaft.

CLAIM 38. (Original) The method of claim 22 wherein said at least one sensor includes:

at least two sensors which measure movement in said periodic pattern with respect to said at least one read head.

CLAIM 39. (Original) The method of claim 38 wherein:

said at least two sensors are positioned at about 90 degrees to each other.

CLAIM 40. (New) The method of claim 8 wherein said arm includes at least five rotary joints such that said articulated arm has at least five degrees of freedom.

CLAIM 41. (New) The method of claim 40 wherein said at least one of said rotary joints comprises at least two of said rotary joints.

CLAIM 42. (New) The method of claim 40 wherein said at least one of said rotary joints comprises at least three of said rotary joints.

CLAIM 43. (New) The method of claim 40 wherein said at least one of said rotary joints comprises at least four of said rotary joints.

CLAIM 44. (New) The method of claim 40 wherein said at least one of said rotary joints comprises at least five of said rotary joints.

CLAIM 45. (New) The method of claim 40 including at least six rotary joints such that said articulated arm has at least six degrees of freedom and wherein said at least one of said rotary joints comprises at least six rotary joints.

CLAIM 46. (New) The method of claim 40 including at least seven rotary joints such that said articulated arm has at least seven degrees of freedom and wherein said at least one of said rotary joints comprises at least seven rotary joints.

CLAIM 47. (New) The method of claim 40 wherein said at least one of said rotary joints comprises all of said rotary joints.

CLAIM 48. (New) The method of claim 8 wherein said at least one of said rotary joints comprises at least two of said rotary joints.

CLAIM 49. (New) The method of claim 8 wherein said at least one of said rotary joints comprises at least three of said rotary joints.

CLAIM 50. (New) The method of claim 8 wherein said at least one of said rotary joints comprises at least four of said rotary joints.

CLAIM 51. (New) The method of claim 8 wherein said at least one of said rotary joints comprises at least five of said rotary joints.

CLAIM 52. (New) The method of claim 8 including at least six rotary joints such that said articulated arm has at least six degrees of freedom and wherein said at least one of said rotary joints comprises at least six rotary joints.

CLAIM 53. (New) The method of claim 8 including at least seven rotary joints such that said articulated arm has at least seven degrees of freedom and wherein said at least one of said rotary joints comprises at least seven rotary joints.

CLAIM 54. (New) The method of claim 8 wherein said at least one of said rotary joints comprises all of said rotary joints.

CLAIM 55. (New) The method of claim 22 wherein said arm includes at least five rotary joints such that said articulated arm has at least five degrees of freedom.

CLAIM 56. (New) The method of claim 55 wherein said at least one of said rotary joints comprises at least two of said rotary joints.

CLAIM 57. (New) The method of claim 55 wherein said at least one of said rotary joints comprises at least three of said rotary joints.

CLAIM 58. (New) The method of claim 55 wherein said at least one of said rotary joints comprises at least four of said rotary joints.

CLAIM 59. (New) The method of claim 55 wherein said at least one of said rotary joints comprises at least five of said rotary joints.

CLAIM 60. (New) The method of claim 55 including at least six rotary joints such that said articulated arm has at least six degrees of freedom and wherein said at least one of said rotary joints comprises at least six rotary joints.

CLAIM 61. (New) The method of claim 55 including at least seven rotary joints such that said articulated arm has at least seven degrees of freedom and wherein said at least one of said rotary joints comprises at least seven rotary joints.

CLAIM 62. (New) The method of claim 55 wherein said at least one of said rotary joints comprises all of said rotary joints.

CLAIM 63. (New) The method of claim 22 wherein said at least one of said rotary joints comprises at least two of said rotary joints.

CLAIM 64. (New) The method of claim 22 wherein said at least one of said rotary joints comprises at least three of said rotary joints.

CLAIM 65. (New) The method of 22 wherein said at least one of said rotary joints comprises at least four of said rotary joints.

CLAIM 66. (New) The method of claim 22 wherein said at least one of said rotary joints comprises at least five of said rotary joints.

CLAIM 67. (New) The method of claim 22 including at least six rotary joints such that said articulated arm has at least six degrees of freedom and wherein said at least one of said rotary joints comprises at least six rotary joints.

CLAIM 68. (New) The method of claim 22 including at least seven rotary joints such that said articulated arm has at least seven degrees of freedom and wherein said at least one of said rotary joints comprises at least seven rotary joints.

CLAIM 69. (New) The method of claim 22 wherein said at least one of said rotary joints comprises all of said rotary joints.